State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-4-214

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following 1999 model-year Navistar International Transportation Corporation diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

| Engine Family | | Displacement (Cubic Inches) | Exhaust Emission Control Systems and Special Features |
|---------------|-----|--------------------------------|--|
| XNVXH0444ANA | 7.3 | (444) | Turbocharger Charge Air Cooler Engine Control Module |

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour:

| Total | Carbon | Nitrogen | <u>Particulates</u> |
|---------------------|-----------------|---------------|---------------------|
| <u>Hydrocarbons</u> | <u>Monoxide</u> | <u>Oxides</u> | |
| 1.3 | 15.5 | 4.0 | 0.10 |

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

| Total | Carbon | Nitrogen | <u>Particulates</u> |
|---------------------|-----------------|---------------|---------------------|
| <u>Hydrocarbons</u> | <u>Monoxide</u> | <u>Oxides</u> | |
| 0.1 | 1.5 | 4.0 | 0.10 |

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 2

R. B. Summerfield, Chief

Mobile Source Operations Division

day of September 1998.

LARGE ENGINE MODEL SUMMARY

Manufacturer: Navistar E.O.#A-4-214

Process Code: New Submission

EPA Engine Family: XNXXH0444ANA

4.Fuel Rate: mm/stroke @ peak HP (for diesel only)

3.BHP@RPM (SAE Gross)

Manufacturer Family Name:

5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)

7.Fuel Rate: mm/stroke@peak torque 6.Torque @ RPM (SEA Gross)

T444E

8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930

| (lbs/hr)@peak torque Device Per SAE J1930 | BLTAA,ECM | ENTAA,ECM | ENTAA, ECM |
|---|------------------|-----------|------------|
| (lbs/hr)@peak torque | 49.9 | 50.5 | 44.6 |
| ining an overlighear torque | 74.5 | 75.4 | 9.99 |
| (SEA Gross) | 485@1500 | 485@1500 | 430@1500 |
| (for diesels only) | 84.9 | 74.7 | 70.3 |
| (for diesel only) | 79.2 | 72.7 | 71.6 |
| (SAE Gross) | 210@2400 | 190@2300 | 180@2200 |
| 2.Engine Model | B210 | 8190 | B175 |
| 1.Engine Code | B210 | B190 | B175 |